

FELLOW NEWS

News for and about the Coastal Management Fellows

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FOCUS ON FELLOWS: BONNIE WILLIS 2001-2003

Growing up in rural South Carolina, Bonnie Willis had little desire to study science. That changed when her high school chemistry teacher convinced her to apply for the National Science Foundation's junior fellowship program at the Savannah River Ecology Lab. Bonnie was chosen for the program and studied the feeding habits of diamondback terrapins located in the salt marsh between Kiawah Island and Seabrook Island in South Carolina. She fell in love with the salt marsh and happily worked 10 to 13 hours a day marking turtles, locating nests, and collecting scat. Besides documenting the differences between female and male terrapins' eating habits, she also discovered that she wanted to learn more about the salt marsh ecosystem.

Bonnie chose to study marine science at Coastal Carolina University where her multidisciplinary classes



Fellow Bonnie Willis standing in front of the Delaware Coastal Nonpoint Program office.

provided her with a diverse and in-depth understanding of the marine environment. After completing her bachelor's degree, Bonnie worked at the Baruch Marine Lab in Georgetown, South Carolina. As a lab technician, she worked with Alan Lewitus conducting research on the toxic algae *Pfiesteria*. To test for the presence of *Pfiesteria* in the waterways of South Carolina, Bonnie added sediment samples to fish tanks to assess behavior changes in the fish that would indicate exposure to the toxin produced by *Pfiesteria*.

This research experience influenced Bonnie to

pursue a master's degree in marine science with a focus on phytoplankton ecology. She attended the University of South Carolina and conducted much of her research at the Baruch Marine Lab.

After finishing her master's degree, Bonnie decided she wanted to expand her area of expertise beyond toxic algae, bacteria, and phytoplankton to the policy-making process. At the time, Becky Ellin, a current fellow and former colleague of Bonnie's at the Baruch Marine Lab, told her about the Coastal Management Fellowship. Bonnie applied and was

matched with the Delaware Coastal Programs, through the Delaware Department of Natural Resources and Environmental Control, to work on developing a system that would track and monitor the implementation and effectiveness of the coastal nonpoint management measures for nonpoint pollution control.

For the first few months of her fellowship, Bonnie reviewed policy and program documents and familiarized herself with current nonpoint pollution control efforts across the state. Delaware's Coastal Nonpoint Program consists of 12 stakeholder groups, including government agencies and local organizations, that have regulatory and implementation responsibilities in preventing nonpoint source pollution. To help Bonnie establish an open dialogue with the stakeholders, Kim Cole, one of Bonnie's mentors, introduced her to people at all of the relevant agencies and organizations. Bonnie says of Kim, "She has been an outstanding mentor. She has always been available to answer any questions I have or to just discuss topical coastal management issues."



One goal of the Clean Marina Initiative is to ensure that sewage pump-out facilities are maintained in operational condition and to encourage their use.

The Environmental Protection Agency's (EPA) designation of six categories of nonpoint source pollution (urban, marinas, agriculture, wetlands and riparian areas, forestry, and hydrologic modification) and the designation of management measures for each of these categories provided Bonnie with a framework to develop her tracking system. She designed a geographic information system and an access database to categorize each management measure based on various attributes, including the agency with implementation responsibilities, the measure's ability to be tracked, data availability, and a component of the

management measure that will be used for tracking implementation.

For example, maintenance of sewage facilities is one section designated by the EPA for the marina nonpoint source pollution category. Within the maintenance of sewage facilities section, a listed management measure is to ensure that sewage pump-out facilities are maintained in operational condition and to encourage their use. In this case, it was determined that the management measure is trackable through an initiative that will have marina owners and operators add language to slip leasing agreements mandating the use of pump-out facilities and specifying penalties for

failure to comply.

With the management measures database in place, data collection and evaluation of the implementation and effectiveness of Delaware's coastal nonpoint management measures have begun. This phase of the project will be ongoing and will require communication between all of the stakeholders to identify the goals and priorities of the networked partners in their efforts to control nonpoint pollution.

In conjunction with the fellowship project, Bonnie has been involved in a wide variety of activities, such as stormwater monitoring and dredge monitoring, to analyze innovative best management practices. In addition, she is serving on both the advisory council and the executive advisory committee for Delaware's Clean Marina initiative. She has also been involved with coastal issues outside of the nonpoint source program such as federal consistency, diminishing horseshoe crab populations, and migratory shorebird sampling.

As of March of this year, Delaware's program became the ninth fully approved coastal nonpoint

program in the nation. With full approval, the program was awarded an extra \$150,000 to put towards implementation of the program. Bonnie feels that, along with its intended purpose, the development of this system on a statewide scale will allow for improved coordination between all participating agencies and organizations and, for the first time, create a readily accessible information management system to address nonpoint pollution issues.

Bonnie hopes to continue working with the Delaware Coastal Programs after her fellowship is complete. If that does not work out, she would like to work with another coastal management program, as long as it is in a place that is not much colder than Delaware because this South Carolinian has discovered her winter weather threshold. ♦



For more information about Delaware's Coastal Nonpoint Program, e-mail Bonnie at Bonnie.Willis@state.de.us.

**FOCUS ON FELLOWSHIP
PARTNERS:
COASTAL STATES
ORGANIZATION**



The Coastal States Organization (CSO) is a fellowship partner that supports the program by serving on the fellow and project selection panels. Tony MacDonald, the CSO's executive director, was on-hand at the triennial fellowship review panel held in September 2002 at the NOAA Coastal Services Center to offer his perspective on all aspects of the program.

As an advocate for improved management of the nation's coasts, oceans, and Great Lakes, the CSO encourages cooperation among the states to resolve national coastal issues without interfering in the states' pursuit of individual, and sometimes differing, objectives. The CSO and the Coastal Management Fellowship share a mutual interest in the welfare of state coastal zone management programs which makes the CSO a

natural fellowship partner choice.

The association's membership consists of delegates appointed by the governors from each of the 35 states, territories, and commonwealths that have an ocean, Gulf, or Great Lake boundary. Nonprofit and nonpartisan, the CSO is headed by an executive committee whose members represent a cross-section of states in each of six U.S. coastal regions. The executive committee is responsible for setting CSO goals and priorities, developing strategies for action on key coastal issues, and speaking for the member states as a whole before Congress, federal agencies, various interest groups, the news media, and the general public. The Executive Committee is supported by five policy committees whose purposes are to examine issues pertaining to coastal and marine policy and to recommend program and legislative changes to the Executive Committee. ♦

If you would like more information about the CSO, please visit their Web site at www.sso.org/cso/.

FOCUS ON FELLOWS: 2001–2003

KIRSTIN WAKEFIELD



Fellow Kirstin Wakefield facilitating a fish print activity at the First Annual Southeastern Pennsylvania Coastal Days in Philadelphia.

Although Kirstin Wakefield spent several summers on the Outer Banks of North Carolina, she credits a seventh grade field trip to Wallops Island, Virginia, with really sparking her interest in marine biology. “It got me hooked,” she says of the four-day trip. That interest guided her academic journey which landed her the NOAA Coastal Management Fellowship. Kirstin is currently working with the Pennsylvania Department of Environmental Protection Coastal Zone Management Program on a project

entitled “Ocean Resources Program Development in Pennsylvania.”

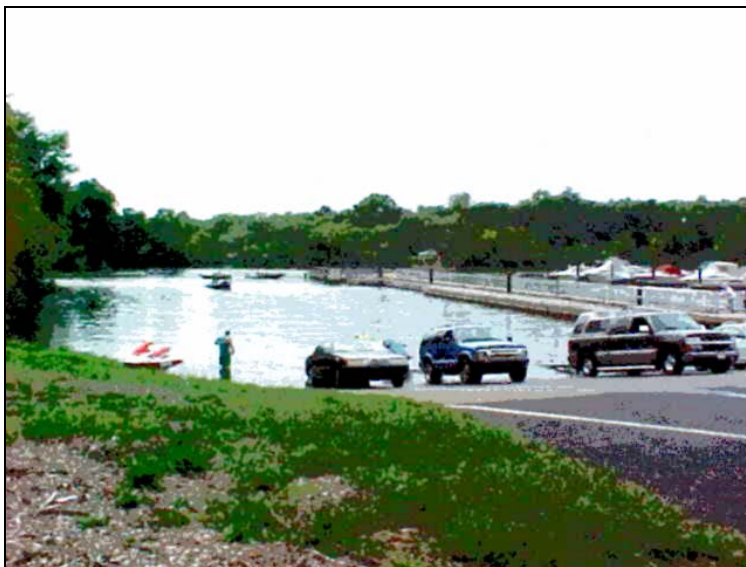
As an undergraduate at the University of Delaware, Kirstin majored in biology. In her sophomore year, she received a science and engineering scholarship to investigate chemical cues in marine worms at the Lewes, Delaware, campus. After taking a semester off at the completion of her bachelor’s degree, Kirstin returned to the University of Delaware in Lewes and enrolled in their Graduate College of Marine Studies where she eventually received a master’s degree

in marine biology and biochemistry.

She learned of the NOAA Coastal Management Fellowship through the NOAA Coastal Services Center's Web site. She says she was really drawn to the Pennsylvania project because she was interested in the topic of aquatic nuisance species and saw it as a rapidly developing field and an emerging area of concern. She also was very interested in the education and outreach aspects of the project.

Kirstin's first task was to develop an ocean resources policy for the state of Pennsylvania. She conducted an extensive literature and policy review and spoke with academics and natural resource managers across the state. She then developed a draft policy that is currently being reviewed by NOAA's Office of Ocean and Coastal Resource Management for acceptance as a routine program change.

The biggest aspect of Kirstin's fellowship involves aquatic nuisance species educational and outreach activities. Last fall, she partnered with Pennsylvania Sea Grant to conduct a survey of natural



A boat ramp in Neshaminy State Park, part of Pennsylvania's Delaware Estuary Coastal Zone, where an Aquatic Nuisance Species (ANS) survey of recreational boaters was conducted.

resource managers and scientists in the Delaware Estuary to determine which species were of greatest concern. Data obtained in this survey was used to help create an invasive species exhibit for the First Annual Southeastern Pennsylvania Coast Day. Sponsored by the Partnership for the Delaware Estuary, over 5,000 people attended the event.

Kirstin recently sent out a survey to 800 randomly selected registered boaters to assess recreational boating behavior, determine the risk of transport of aquatic nuisance species by boaters, and ascertain boaters' awareness of the issue. Kirstin will work with

the Pennsylvania Fish and Boat Commission and Pennsylvania Sea Grant to analyze the results and compile a report that will direct future outreach activities.

Upcoming outreach activities include a workshop in May on Aquatic Invaders of the Delaware Estuary. Sponsored by DEP, Sea Grant, and Partnership for the Delaware Estuary, the workshop will address economic impacts, species of concern, and opportunities for regional coordination with an emphasis on preventing new invasions. Kirstin hopes workshop participants will help reveal priority issues. She is also organizing a workshop in

the Lake Erie watershed that will train volunteers on how to monitor for aquatic nuisance species.

Volunteers will sample through the summer, and their results will be compiled into a report. She hopes that this volunteer monitoring program can be adapted for statewide use.

Finally, Kirstin has been tasked with the challenging task of developing a statewide management plan for aquatic nuisance species. An interagency working group has been developed to draft the policy, however the final plan likely will not be completed before Kirstin's fellowship concludes. Although it will not be

complete, the foundations of interagency communication have been well established.

The fellowship has offered some exciting opportunities to Kirstin. It has opened doors within state government, enabling her to interact with executive level staff. She has been actively involved in regional initiatives such as the Great Lakes Aquatic Nuisance Species Panel and the Chesapeake Bay Invasive Species Workgroup. She has also found it interesting to be involved in the political process "behind the scenes" that ultimately provides direction for science and outreach

programs. Though her future plans are uncertain, Kirstin would like to remain in the mid-Atlantic region and continue to work in marine education and outreach, but she has not ruled out the option of returning to school for her Ph.D. ♦



For more information about Pennsylvania's Aquatic Nuisance Species Program, e-mail Kirstin at c-kwakefie@state.pa.us.

Upcoming Conferences & Events

For more information on upcoming events, visit www.csc.noaa.gov/cms/conferences.html

APRIL

13–16: Inaugural National Conference on Coastal and Estuarine Habitat Restoration

Location: Baltimore, Maryland
www.estuaries.org/

MAY

11–16: Association of Floodplain Managers Annual Conference

Location: St. Louis, Missouri
www.floods.org/StLouis/default.htm

18–23: Coastal Sediments '03

Location: Clearwater Beach, Florida
www.coastalsediments.net/

JUNE/JULY

6/29–7/3: Watershed Management for Water Supply Systems

Location: New York City, New York
www.awra.org/meetings/NewYork2003/index.html

7/13–17: Coastal Zone Conference

Location: Baltimore, Maryland
www.csc.noaa.gov/cz2003/

FOCUS ON THE CENTER: COASTAL CONNECTIONS NEWSLETTER

The NOAA Coastal Services Center has a new publication for coastal managers. This bimonthly newsletter, *Coastal Connections*, looks closely at the tools and resources managers can use to get the job done. Each issue focuses on a tool, information resource, or methodology that may help coastal managers more easily handle common challenges. The first issue came out in February/March 2003 and featured information on how to create an effective Web site. It included articles on

- building Web pages, using the success of the North Carolina Division of Coastal Management's site as an example
- maintaining a Web site once it is on-line
- finding graphics to enhance a site
- using Build-A-PIVOT, a Center tool that helps managers create Web pages that engage the public

Each issue of the newsletter also includes a

profile of a coastal management professional, as well as news and notes from the coastal management community.

Topics for upcoming issues will focus on tools and subjects such as:

- Needs assessments
- Metadata
- Nonpoint source pollution

If there is a topic on which you'd like *Coastal Connections* to focus, please e-mail us. The newsletter relies on input from the coastal management community to ensure it is providing the information most useful for



handling everyday issues and responsibilities. ♦

To subscribe to this free newsletter via e-mail, send your name, organization's name, and mailing address to CoastalConnections@noaa.gov.



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Upcoming Training*

*Training classes are limited to project partners and NOAA line offices.

April 2003

28–29: Introduction to ArcGIS 8.2

May 2003

19–20: Introduction to ArcView GIS 3.3

21–22: Intermediate ArcView GIS 3.3

23: Introduction to GPS

June 2003

24–25: Introduction to ArcGIS 8.2

For additional information about training opportunities offered by the Center, please visit our training Web site at www.csc.noaa.gov/training/.





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